CONTENTS

Number 1, January

An Autopsy Study of Rheumatic Heart Disease. Part I. Valvular Involvement and Aschoff Bodies. *Veena Malhotra, P. C. Beohar, M. Khalillulah, R. Malik, and P. S. Naryanan* 1

An Autopsy Study of Rheumatic Heart Disease. Part II. Associated Findings. *Veena Malhotra, P. C. Beohar, R. Gondal, U. A. Kaul, and S. K. Khanna* 7

Prognosis of Patients with Persistent Negative U Wave Following Myocardial Infarction. *Hiroshi Kishida, Noritake Hata, Jun Nejima, Takeshi Suzuki, Fumio Otsu, Tsutomu Saito, and Yoshiki Kusama* 15

Effect of Mild Aerobic Exercise on Serum Lipids and Apolipoproteins in Patients with Coronary Artery Disease. *Hidenori Urata, Jun Sasaki, Yoichi Tanabe, Akira Kiyonaga, Toyokazu Yoshida, Hiroaki Tanaka, Munehito Shindo, and Kikuo Arakawa* 27

Left Ventricular Performance in Cases with Chronic Renal Failure. A Study of Systolic Time Intervals. *J. S. Chopra, Nitya Nand, V. K. Goel, and Jagdish* 35

Changes in Plasma Atrial Natriuretic Polypeptide Concentration during Head-out Water Immersion and Saline Infusion in Normal Men. *Toshio Ogihara, Junko Shima, Hiroko Hara, Yoshikatsu Tabuchi, Kiyoko Hashizume, Yuichi Kumahara, Kenji Kangawa, and Hisayuki Matsuo* 41

Plasma Concentration of Atrial Natriuretic Polypeptide in Patients with Atrial Tachycardia. *Yasunobu Hirata, Akira Nozaki, Iku Toda, Yuji Murakawa, Tokuichiro Sugimoto, Hiroaki Matsuoka, Masao Ishii, Tsuneaki Sugimoto, Atsuro Miyata, Kenji Kangawa, and Hisayuki Matsuo* 53

Analgesic and Hemodynamic Effects of Buprenorphine in Acute Infarction of the Heart. *Paolo Sganzerla, Carlo Cipolla, Paolo Della Bella, Franco Fabbiocchi, Sergio Grazi, Andrea Rimondini, and Maurizio D. Guazzi* 63

Noninvasive Assessment of Hemodynamic Changes during Therapy with Nitrendipine in Arterial Hypertension. *Giovanni de Simone, Luigi di Lorenzo, Liberato A. Ferrara, Guido Costantino, Maria Luisa Fasano, Stefano Soro, and Mario Mancini* 73

Biochemical Characterization of the Conduction System of the Bovine Heart. *Takayuki Sogabe, Hiroyoshi Mori, and Kenji Aki* 85

A Quantitative Microscopic Analysis of the Myocardial Interstitial Tissue Space and Myocardial Fiber Diameter in Rats with Vitamin E and Selenium Deficiency. *Jami G. Shakibi and William L. Stone* 97

The Paradoxical Adverse Effect of Verapamil for Treating Clinical Paroxysmal Supraventricular Tachycardia. *Tetsunori Saikawa, Ken Inoue, Ichiro Ohmura, Sukenobu Ito, Hidetoshi Yonemochi, Mikiko Nakagawa, Morio Ito, Kyoichi Ohashi, and Akio Ebihara* 107

Right Ventricular Obstruction in Various Types of Hypertrophic Cardiomyo-

pathy. *Ulrich Stierle, Abdolhamid Sheikhzadeh, Jami G. Shakibi, Axel-Friedrich Langbehn, and Karl-Werner Diederich* 115
Rheumatic Fever as a Cause of Myocardial Infarction with Coronary Narrowing. *Zenshiro Onouchi, Hiroshi Tamiya, and Hatsufumi Matsuoka* 127
A Proposal for the Standardization of Body Surface Potential Mapping (BSPM) Systems. *Committee for BSPM Standardization* 135

Number 2, March

The First Heart Sound in Normal and Pathological Conditions. *Aldo A. Luisada* 143
Comparison of Susceptibility of Myopotential Inhibition between AAI and VVI Pacemakers. *Hiroshi Ito, Yoshito Iesaka, Koichi Taniguchi, and Jugoro Takeuchi* 157
Determination of the Site of Myocardial Infarction by QRST Isointegral Mapping in Patients with Abnormal Ventricular Activation Sequence. *Akira Igarashi, Isao Kubota, Kozue Ikeda, Kai Tsuiki, and Shoji Yasui* 165
Effects of Treadmill Exercise on Platelet Function, Blood Coagulability and Fibrinolytic Activity in Patients with Atrial Fibrillation. *Hirohiko Furui, Naoki Taniguchi, Kazunobu Yamauchi, Iwao Sotobata, Hidehiko Saito, and Haruo Inagaki* 177
Clinicopathological Study on Left Ventricular Hypertrophy in Elderly Hypertensive Patients. *Iwao Kuwajima, Satoru Matsushita, and Kizuku Kuramoto* .. 185
High Renin Hypertension in the Elderly. *Yoshiaki Takayama, Kazuhide Yamaoki, Akira Seki, Masao Amano, and Jun Fujii* 193
Mechanism of Polyuria and Natriuresis Associated with Paroxysmal Supraventricular Tachycardia. *Rong-Chi Tsai, Tohru Yamaji, Miyuki Ishibashi, Fumimaro Takaku, San-Jou Yeh, Ying-Shiung Lee, Jui-Sung Hung, and Delon Wu* 203
Angiotensin II-induced Drinking in Water-deprived and Nephrectomized Dogs. *Hiromichi Suzuki, Takao Saruta, K. Bridget Brosnihan, and Carlos M. Ferrario* 211
Effects of Atrial Natriuretic Peptide on Renal Function and Renin Release in the Isolated Perfused Rat Kidney. *Shosaku Narumi, Toshiyuki Yasui, Mamoru Yoshizawa, Minako Kawamura, Hiromichi Suzuki, Haruyuki Nakane, and Takao Saruta* 221
Effects of Coronary Collaterals on Regional Myocardial Function during Temporary Coronary Occlusion and Hypoxic Coronary Perfusion. *Sadanori Ohtsuka, Masaaki Kakihana, Yasuro Sugishita, Iwao Ito, and Mamoru Saito* 229
Effects of L-Carnitine on Phospholipids in the Ischemic Myocardium. *Bunnosuke Nagao, Akira Kobayashi, and Noboru Yamazaki* 243
Cardiovascular Responses to a Newly Developed Cardiotonic Agent, ZSY-39 [4-methyl-5-(4-pyridinyl)-thiazole-2-carboxyamide] in Dog Cross-Circulated Atrial and Ventricular Preparations. *Shigetoshi Chiba, Yasuyuki Furukawa, Kimiaki Saegusa, Yasuhiro Ogiwara, and Masayoshi Takeda* 253
Cardiovascular Effects of a New Phenoxyalkylamine Derivative, 2-isopropyl-5-[3-(2-methoxyphenoxy)propylamino]-2-(3,4,5-trimethoxyphenyl) valero-

nitrile fumarate (HV-525), in Cross-Circulated Dog Atrial Preparations. *Shigetoshi Chiba, Yasuhiro Ogiwara, Yasuyuki Furukawa, and Kimiaki Saegusa*.. 261
Use-dependent Blocking Action of Newly Developed Lidocaine-analogs on Maximum Rate of Rise of Action Potentials in Guinea Pig Papillary Muscle. *Junji Toyama, Itsuo Kodama, Takahiro Kusunoki, Takafumi Ishihara, Yoshikazu Hattori, and Kazuo Yamada* 273
Cardiac Tamponade in Rheumatoid Arthritis. Successful Treatment with Intrapericardial Steroid Administration. *Takeshi Nakano, Tokuji Konishi, Masashi Yamamuro, Naoki Isaka, Ma Wei, and Hideo Takezawa*..... 287

Number 3, May

Factors Influencing the Clinical Course and the Long-term Prognosis of Patients with Variant Angina. *Hiroshi Kishida, Noritake Hata, Yoshiki Kusama, Takeshi Suzuki, Tsutomu Saito, Jun Nejima, Fumio Otsu, Masahiro Yasutake, Shinichi Koumi, and Akihiro Nakagomi* 293
A Clinicopathologic Correlation Study of Thallium-201 Myocardial Scintigraphy in Diagnosis of Myocardial Infarction. *Kouji Chida, Masaya Sugiura, Shin-ichiro Ohkawa, Toshiyuki Takahashi, Jun-ichi Suzuki, Keiji Ueda, Hiromi Tabuchi, Hajime Murata, Junichi Nagashima, Kazuo Chiba, and Hideo Yamada* 307
Study on Congenital Complete Heart Block in Children by 24-Hour Ambulatory Electrocardiographic Monitoring. *Masami Nagashima, Takahiro Nakashima, Toshiyuki Asai, Masaki Matsushima, Akimasa Ogawa, Akiko Ohsuga, Tetsuichi Kaneko, Takehiko Yazaki, and Mitsuharu Okajima* 323
Alterations of Ultrastructures and Anionic Sites in Basement Membranes of Myocardial Cells and Capillaries in Patients with Cyanotic Congenital Heart Disease Due to Tetralogy of Fallot. *Ying-Shiung Lee and Yin-Cheng Chen*..... 333
Left Ventricular Mass and Blood Pressure during Ergometric Exercise in Primary Hypertension. *L. Aldo Ferrara, Marcello Mancini, Giovanni de Simone, M. Luisa Fasano, and Mario Mancini*..... 349
Effects of Sodium Intake on the Captopril Test for Primary Aldosteronism. *Shojiro Naomi, Teruhisa Umeda, Taisuke Iwaoka, and Tatsuo Sato* 357
Hemodynamic Effect of Bunitrolol on Patients with Ischemic Heart Disease. Comparison with Propranolol. *Takashi Serizawa, Masahiko Iizuka, Tetsuo Ohya, Yoshi Ohtani, Seiryo Sugiura, Tadashi Koide, Yasumi Uchida, Shigenori Morooka, Akihito Kato, Yoshio Kimura, Seiichi Sumino, Takanobu Tomaru, and Tsuneaki Sugimoto* 367
Hemodynamic Characteristics of Echocardiographic Findings in Hypertensive Patients with Negative U Waves and Effect of an Antihypertensive Drug, Tripamide. *Hiroshi Kishida, Fuyuko Takiguchi, Yuji Sugiki, Shinichi Kuroki, Takashi Tanaka, Yasuhiko Seino, Hiroyuki Sasaki, Jun Fukuda, and Shogo Matsuo*..... 377
Impaired Coronary Vasodilatory Capacity after Dipyridamole Administration in Hypertrophic Cardiomyopathy. *Masayoshi Shimamatsu and Hironori Toshima* 387

Effects of the Rise in Aortic Pressure on Coronary Flow Reserve in Dogs. Comparison between Constriction of the Descending Thoracic Aorta and Injection of Methoxamine. *Sadanori Ohtsuka, Masaaki Kakihana, Yasuro Sugishita, and Iwao Ito* 403
Characterization of Neurohormonal Changes Following the Production of the Benign and Malignant Phases of Two-Kidney, Two-Clip Goldblatt Hypertension. *Hiromichi Suzuki, Takao Saruta, Carlos M. Ferrario, and K. Bridget Brosnihan* 413
Effects of Calmodulin Antagonists on Norepinephrine Release and Vascular Responsiveness in Rat Mesenteric Vasculature. *Kazushi Tsuda, Ichiro Nishio, and Yoshiaki Masuyama* 427
Effects of Nicardipine on the Systemic and Renal Hemodynamics in Acutely Elevated Blood Pressure Induced by Vasoactive Agents in Conscious Rabbits. *Shigeaki Matsukawa, Hiromichi Suzuki, Yoshiaki Itaya, Hiroo Kumagai, and Takao Saruta* 435
A Case Showing a Rare Evolution from Hypertrophic Obstructive Cardiomyopathy to " Dilated " Cardiomyopathy Demonstrated by Echocardiography. *Nariaki Kanemoto, Akihiko Kawana, Chiemi Imaoka, and Yuichiro Goto* 445
Myocardial Infarction in Graves' Disease without Coronary Artery Disease. *Takeshi Nakano, Tokuji Konishi, Yasuo Futagami, and Hideo Takezawa* 451
Supravalvular and Valvular Aortic Stenosis in Homozygous Familial Hypercholesterolemia. *Seydi V. Aksüt, Ferhan Özmen, Ahmed Oktay, Sevket Ugurlu, and Erdem Oram* 457
Book Review 466

Number 4, July

Effects of Percutaneous Transluminal Coronary Angioplasty on Segmental Left Ventricular Function in Patients with Acute Myocardial Infarction. *Hiroyuki Kurogane, Motoshi Takeuchi, Makoto Nakatani, Michitoshi Sunako, Kenta Kawakami, Shinobu Tomimoto, Katsumi Minamiji, Naoaki Imai, Motohiro Fujino, Shigenobu Yamada, and Yutaka Yoshida* 467
Impaired Right Ventricular Filling in Old Myocardial Infarction. *Hong-tai Bai, Kazuhiro Fujitani, and Hisashi Fukuzaki* 479
Effects of Nifedipine on Left Ventricular Systolic and Diastolic Function in Patients with Ischemic Heart Disease. Radionuclide Angiocardiographic Studies at Rest and during Exercise. *Kaname Iida, Mitsuo Matsuda, Ryuichi Ajisaka, Yasuro Sugishita, Iwao Ito, Toru Takeda, Motoo Ooshima, and Masayoshi Akisada* 495
Quadrivalvular Rheumatic Heart Disease. *Shri Krishna Gupta, Abraham K. Abraham, Ganesh K. Mani, K. M. Cherian, J. Satyanarayana Moorthy, and K. Bhaskaran* 507
Studies on Cyclic AMP-Dependent Protein Kinase Inhibitor from Human Heart. *Takashi Kaku and Satoru Matsushita* 515
Effects of Dichloroacetate on the Mechanical Function of the Isolated Ischemic Heart. *Suguru Matsuoka, Kenji Toshima, Etsuo Naito, Tadanori Nakatsu,*

Yoshio Miyauchi, Yasuhiro Kuroda, and Masuhide Miyao 531
Electrophysiological Effects of Flecainide on Guinea Pig Ventricular Muscle in High [K^+]o, Acidosis and Hypoxia. *Shogo Matsuo, Yoshiki Koh, Ryoichi Sato, Kazuo Munakata, and Hiroshi Kishida* 539
Swallowing-induced Paroxysmal Supraventricular Tachycardia. *Ritsuko Terasaka, Masao Takemoto, and Shoichi Haraoka* 555
Calcification of the Tricuspid Annulus. Case Report and Review of the Relevant Literature. *George Kouvaras, Athanasios Manolis, and Dennis V. Cokkinos* 561
Proceedings of the XXII Annual Scientific Meeting of the Society for the Spontaneously Hypertensive Rat (SHR). September 12–13, 1986, Tokyo 567

Number 5, September

The Role of Parasympathetic Nerve Activity in the Pathogenesis of Coronary Vasospasm. *Masakuni Suematsu, Yoshihisa Ito, and Hisashi Fukuzaki*..... 649
Effects of a Selective Thromboxane Synthetase Inhibitor (OKY-046) in Patients with Coronary Artery Disease during Exercise. *Masahiko Shikano, Takayuki Ito, Kouichi Ogawa, and Tatsuo Satake* 663
Systemic and Coronary Hemodynamic Effects of β-Adrenoceptor Blocking Agents in Coronary Artery Disease. *Yoshimasa Yabe and Takeshi Morishita* 675
Clinical Features and Cardiopulmonary Function of Patients with Atrophic Heart in Duchenne Muscular Dystrophy. *Suguru Matsuoka, Kunio Ii, Hiroshi Akita, Hirofumi Tomimatsu, Yoshihide Kurahashi, Tadanori Nakatsu, and Masuhide Miyao* 687
(Na^++K^+) ATPase Inhibitors and Intracellular Electrolytes in Essential Hypertension. *Taisuke Iwaoka, Charles A. Nugent, Teruhisa Umeda, and Tatsuo Sato* 695
Computer Simulation of the Wolff-Parkinson-White Syndrome Utilizing a Human Heart Model. *Daming Wei, Masanori Aoki, Yoshiwo Okamoto, Toshimitsu Musha, and Ken-ichi Harumi*..... 707
Comparison of the Effects of Calcium Channel Blockers and Antiarrhythmic Drugs on Digitalis-induced Oscillatory Afterpotentials on Canine Purkinje Fiber. *Kyoko Endou, Hareaki Yamamoto, and Toshiro Sato* 719
Examination of the Direct Effects of Antianginal Agents on the Hypoxic Canine Myocardium. *Yoshiro Nakamura, Shoji Kojima, Hidezo Mori, Masayoshi Nagata, Toshihisa Miyazaki, Ryoko Miyamori, Shigehiko Hattori, and Masando Takahashi* 737
Effect of Diltiazem on Acute Myocardial Ischemia. Study of the Relationship between Regional Myocardial Blood Flow and Myocardial Energy Metabolism. *Bunya Itoh, Tatsuaki Matsubara, Kenichi Itoh, Kyoji Katoh, Tatsuo Hashimoto, Che-Lang Chen, Kinya Nishimura, Tadashi Kambe, and Nobuo Sakamoto* 747
Intact Chordae Tendineae Increase Ventricular Volume Measurement Error by the Balloon Method. *Nobuaki Tanaka, Shiho Futaki, Takashi Nozawa, Yoshio Yasumura, Yoichi Goto, Katsuhiko Hiramori, and Hiroyuki Suga* 757
Effects of Vanadate on Vascular Smooth Muscles of WKY and SHRSP.

Satoru Sunano, Tomoko Shimada, and Keiichi Shimamura 765
Cardiac Effects of Piretanide and Furosemide on Intact Anesthetized Dogs and on Isolated Atria. *Shigetoshi Chiba, Yasuyuki Furukawa, Kimiaki Saegusa, and Yasuhiro Ogiwara* 783
Percutaneous Mitral Valvuloplasty in Rheumatic Mitral Stenosis by Isolated Transarterial Approach. A New and Feasible Technique. *Jorge R. Büchler, Stoessel F. Assis Fo, Sérgio L. N. Braga, and José Eduardo M. R. Sousa* 791
A Case of Primary Dissecting Aneurysm of the Coronary Artery. *Junichi Sadoshima, Yutaka Nakashima, Yuji Taira, Samon Koyanagi, Akira Takeshita, Kenzo Tanaka, and Motoomi Nakamura* 799
The Complete Cancellation of Abnormal Q Waves Due to an Old Anteroseptal Infarction Following Subsequent Acute Posterior Myocardial Infarction. *Tetsunori Saikawa, Mayumi Abe, Mikiko Nakagawa, Ichiro Omura, Takeshi Takakura, Shoichi Horita, Sukenobu Ito, Ryosaburo Takaki, and Morio Ito* 805
Book Review 811

Number 6, November

Effects of Combined Changes in Serum Calcium and Potassium on QT Interval. A Study by Holter Electrocardiographic Monitoring during Hemodialysis. *Rafique Ahmed, Fumihiro Kiya, Koei Kitano, Hiroyuki Takagi, and Kunitake Hashiba* 813
Determination of the Hypertrophic Site of the Left Ventricle by Body Surface Mapping in Patients with Hypertension. *Hikaru Hoshi, Isao Kubota, Kozue Ikeda, Kai Tsuiki, and Shoji Yasui* 829
Long-Term Prognosis of Vasospastic Angina without Significant Atherosclerotic Coronary Artery Disease. *Kensuke Egashira, Yutaka Kikuchi, Tomohiko Sagara, Masayoshi Sugihara, and Motoomi Nakamura* 841
The Effects of Isosorbide Dinitrate on Exercise-induced ST-segment Elevation at the Infarcted Area in Old Myocardial Infarction. *Toshiro Tanizaki, Katsuya Kobayashi, and Hisashi Fukuzaki* 851
Improved Prognosis after Coronary Thrombolysis with Urokinase in Acute Myocardial Infarction. *Ryo Katori, Kinji Ishikawa, Ken Kanamasa, Masataka Morishita, Makoto Ohno, Iwao Ogawa, Hirao Namikawa, and Akihiro Okayama* 863
Mitral Valve Prolapse in Patients with Anorexia Nervosa. Two-Dimensional Echocardiographic Study. *Yukiko Oka, Takashi Ito, Shinsaku Matsumoto, Hiroyuki Suematsu, and Etsuro Ogata* 873
Beneficial Effects of Intracoronary Nicardipine on Hypoxic Myocardium. *Ryoko Miyamori, Yoshiro Nakamura, Hidezo Mori, Toshihisa Miyazaki, Shoji Kojima, Sumihisa Abe, Masando Takahashi, and Shigehiko Hattori* 883
Potency and Receptors Involved in Coronary Vasoconstriction Caused by Neuropeptide Y(NPY). *Yoshifusa Aizawa, Masahito Satoh, Masami Aizawa, Toshikazu Funazaki, Shinichi Niwano, Seiichi Miyajima, and Akira Shibata* 891
Influence of Collateral Flow Reduction on Electrophysiologic Properties of Preexisting Ischemic Area and Inducibility of Ventricular Arrhythmias

in the Dog. *Katsusuke Yano, Masanobu Hirata, Yoriaki Matsumoto, Mitsuhiro Mori, Osamu Hano, Rafique Ahmed, Takao Mitsuoka, and Kunitake Hashiba*.. 899

Effects of DJ-7141, a New Alpha-2 Agonist, 2-(2-Chloro-6-Fluorophenyl)-2,3,5,6-Tetra-Hydro-1H-Imidazo[1,2-a]Imidazole Hydrochloride, on the Isolated Atrium, Cross-Perfused with Blood from a Support Dog. *Yasuyuki Furukawa, Kimiaki Saegusa, Yasuhiro Ogiwara, Masayoshi Takeda, and Shigetoshi Chiba* 913

Alterations in Calcium-handling of Erythrocytes in Spontaneously Hypertensive Rats. Calcium-induced Changes in the Osmotic Fragility of Erythrocytes in Hypertension. *Kazushi Tsuda, Yohsuke Minatogawa, Seiko Tsuda, Hiroki Shima, Ichiro Nishio, Ryo Kido, and Yoshiaki Masuyama*..... 923

A Histopathologic Study of the Conduction System in an Elderly Patient with Partial Atrial Standstill. *Hironori Ezaki, Shin-ichiro Ohkawa, Akihiko Miyagawa, Keiji Ueda, and Masaya Sugiura* 933

Familial Dilated Cardiomyopathy and Human Leucocyte Antigen. A Report of Two Family Cases. *Seiichi Koike, Shigeyuki Kawa, Kouji Yabu, Ryohei Endo, Yasuyuki Sasaki, Seiichi Furuta, and Masao Ota* 941

A Case with Spasm of a Saphenous Vein Graft. *Fumimaro Takatsu, Hiroyasu Ishikawa, and Teruo Nagaya* 947

Announcement 955

Author Index..... 957

Subject Index..... 965